When two masked targets are presented in rapid succession, correct identification of the first target (T1) leads to a dramatic impairment in identification of the second target (T2). Several studies of this so-called attentional blink (AB) phenomenon have provided behavioral and physiological evidence that T2 is processed to the semantic level, despite the profound impairment in T2 report. These findings have been interpreted as an example of perception without awareness and have been explained by models that assume that T2 is processed extensively even though it does not gain access into consciousness. Two experiments are reported that challenge this assumption. In Experiment 1, the perceptual load of the T1 task was manipulated and T2 was a word that was either related or unrelated to a context word presented at the beginning of each trial. The event-related potential (ERP) technique was used to isolate the context-sensitive N400 component evoked by the T2 word. The ERP data revealed that there was a complete suppression of the N400 during the AB when the perceptual load was high, but not when perceptual load was low. Experiment 2 replicated the high load condition of Experiment 1 while ruling out two alternative explanations for the reduction of the N400 during the AB. The results of both experiments demonstrate that word meanings are not always accessed during the AB and are consistent with studies that suggest that attention can act to select information at multiple stages of processing depending on concurrent task demands.